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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.    | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------|------------------|
| 09/879,094   | 06/13/2001  | Takehiro Yoshida     | P14739-A               | 5279             |
| 7590 04/06/2005<br>McGinn & Gibb, PLLC<br>8321 Old Courthouse Road, Suite 200<br>Vienna, VA 22182-3817 |             |                      | EXAMINER<br>PHAN, HANH |                  |
|  |             |                      | ART UNIT               | PAPER NUMBER     |
|  |             |                      | 2633                   |                  |

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/879,094 | <b>Applicant(s)</b><br>YOSHIDA, TAKEHIRO |  |
|                              | <b>Examiner</b><br>Hanh Phan         | <b>Art Unit</b><br>2633                  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/18/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-In Claim 1, lines 16 and 17, the phrase "**a light signal having different wavelength**" is unclear.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art Figure 7 in view of Okano et al (US Patent No. 6,449,074).

Regarding claim 1, Prior Art Figure discloses a wavelength division multiplex transmission system comprising:

N (N is the maximum number of wavelengths to be used) continuous wave light generating means (i.e., continuous wave light generating sections 11-1, 11-2,...,11-n)(Prior Art Figure 7), each for generating continuous wave light having the same wavelength as one of input even- and odd-numbered wavelengths used as operating wavelengths;

N switching means (i.e., switching circuit sections 12-1, 12-2,..., 12-n)( Prior Art Figure 7), each for selecting one of an input wavelength and continuous wave light output from the continuous wave light generating means; and

wavelength multiplexing means (i.e., wavelength multiplexing section 14)(Prior Art Figure 7) for outputting the other light signal of input light signals having even- and odd-numbered wavelengths and a light signal having different wavelength which is output from the switching means upon wavelength multiplexing.

Prior Art Figure 7 differs from claim 1 in that it fails to teach  $N/2$  continuous wave light generating means,  $N/2$  switching means and outputting continuous wave light having a level twice as high as an input level of a light signal having an operating wavelength. However, Okano in US Patent No. 6,449,074 teaches a continuous wave light source with a control circuit is used (see Figures 7-9) or a plurality of continuous wave light sources with a plurality of control circuits may be used to cope with breaking of plural channels (col. 7, lines 64-67 and col. 8, lines 1-5), and the continuous wave light source can be adjusted by a level adjusting unit (Fig. 8, col. 8, lines 48-56).

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Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the plurality of continuous wave light sources with a plurality of control circuits and the continuous wave light source can be adjusted by a level adjusting unit as taught by Okano in the system of Prior Art Figure 7. One of ordinary skill in art would have been motivated to do this since Okano suggests in column 7, lines 64-67 and col. 8, lines 1-5 and lines 48-56 that using such the plurality of continuous wave light sources with a plurality of control circuit and the continuous wave light source can be adjusted by a level adjusting unit have advantage of allowing the total output power of WDM signal light can be maintained constant even when optical signals in plural channels are cut off.

Regarding claim 2, the combination of Prior Art Figure 7 and Okano teaches further comprising control means for controlling switching operation of switching means and level adjusting operation for continuous wave light output from the continuous wave light generating means by outputting a switching control signal and continuous wave light output level adjustment control signal to the switching means in accordance with an operation state of wavelengths (see Figures 7-9 of Okano, col. 8, lines 48-56).

Regarding claims 3 and 7, the combination of Prior Art Figure 7 and Okano teaches when a wavelength  $\lambda_n$  ( $n$  is a value representing the specific ordinal wavelength number in a wavelength region of the 1st to Nth wavelengths) and neighboring wavelength  $\lambda_{n-1}$  are not used as operating wavelengths, the control means controls the switching means corresponding to the wavelength  $\lambda_n$  to output continuous

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wave light output from the continuous wave light generating means for generating the wavelength  $\lambda_n$  to the wavelength multiplexing means and maintain an optical level of the continuous wave light (col. 7 of Okano, lines 64-67 and col. 8, lines 1-5).

Regarding claim 6, the combination of Prior Art Figure 7 and Okano teaches when N is an odd number, the continuous wave light generating means corresponding to an even integer equal to  $(N+1)/2$ , and the number of wavelengths is set to an even number (col. 7 of Okano, lines 64-67 and col. 8, lines 1-5).

### ***Allowable Subject Matter***

6. Claims 4, 5 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and overcome the 112 rejection.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

  
**HANH PHAN**  
**PRIMARY EXAMINER**